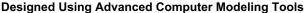
# Pressure Transducer Series 2



Bonded Foil Sensing Technology

Model(s) 2211/2911



For optimum performance, the sensing element was designed using Finite Element Analysis and other computer modeling tools. Key features of the sensing element are isolation from induced stresses (generated from installation torque, temperature excursions, vibration and shock), and high over-pressure protection.



### Manufactured for Aerospace Grade Applications

Reliability and accuracy are built into every transducer using advanced manufacturing techniques. Critical procedures such as heat-treat and bonding are controlled through vacuum furnaces. Welding and calibration are accomplished with fully automated work cells. State of the art characterizing electronics meet MIL-STD 461 EMI standards, and are engineered for severe vibration and shock environments. Extreme environmental burnin ensures the transducer's reliability and accuracy will be maintained over time.



### **Pressure and Temperature Outputs**

An internal 100 Ohms Platinum RTD temperature sensor is a standard feature of the Series 2. The RTD can be used to measure media temperature, or to thermally characterize the output of the pressure transducer.

### **Standard and Customer Configurations Available**

A full range of options is offered for the Series 2, including alternate materials, pressure ports, electrical connectors, and



### **Standard Features**

0-2 thru 0-20k psi +/- 0.2% FSO Static Accuracy 100 Ohms platinum RTD (17) point calibration cert with temp data



## Pressure Transducer Series 2



"On-Board" and Support Applications 0-2 thru 0-20k psi

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### Mechanical

Pressure Ranges

Ranges from 0-2 thru 0-20k psi

Proof Pressure 2211A 15 to 200 psi 500 psi

500 to 20k psi 1.5X std. range

2911C & F 2 to 10 psi 100 psi

15 to 200 psi 500 psi 300 to 5000 psi 3X std. range 7.5k to 10k psi 2X std. range

15k to 20k psi 1.5X std. Range

Burst Pressure 2211A 15 to 200 psi >1000 psi

500 to 5k psi >3X std. Range

7.5k to 20k psi >2X std. range

2911C & F 2 to 200 psi >1000 psi

300 to 5000 psi >6X std. range 7.5k to 10k psi >3X std. range

15k to 20k psi >2X std. Range

Pressure Port MS33656-4 male \*

(Alternate pressure ports available)

Elect. Connection Mates w/ MS3116-10-6S \*

Materials 316L, 347, 17-4 Stainless Steel \*

(Plus materials of electrical connector and cable)

Dimensions Per outline drawing below

Weight Less than 170 g.

### **Electrical**

Input Voltage

Model 2211A Calibrated at 10 Vdc (15 Vdc max)

Model 2911C\* 20-36 Vdc Unregulated Model 2911F 8-36 Vdc Unregulated Vdc

Power Supply Rejection ± 0.002% per Volt input change

Model 2211A N/A; ratio-metric output

Output

Model 2211A 3 mV/V

Model 2911C 0-5 Vdc Isolated \*
Model 2911F 4-20 mAdc

Zero Balance ± 1.0% FSO \*

FSO Setting  $\pm$  0.5% FSO \*

Resolution Infinite ( $\pm$  0.001% FSO usable) Response Time Less than 3 ms (10.90% FSO)

Insulation Resistance Greater than 100 M Ohms @ 50 Vdc

Reverse Polarity Protected Yes

Output Short Circuit Protected Yes

EMI/RFI Protected 2911C and 2911F

#### **Performance**

Static Accuracy ± 0.25% FSO \* (BFSL, RSS)

(Combined effects of non-linearity, hysteresis and repeatability)

Repeatability ± 0.075% FSO

Temperature Error Band  $\pm 1.5\%$  FSO \* over comp range (Combined effects of Zero and FSO with reference at 28° C)

Long Term Stability ± 0.1% FSO per annum

### **Environmental**

Compensated Temp Range  $\,\cdot 20$  to 76° C (-4 to 170° F) \*

Operating Temp Range -54 to  $+121^{\circ}$  C (-65 to 250° F) Storage Temp Range -54 to  $+121^{\circ}$  C (-65 to 250° F)

Triaxial Shock 30 g's for 11 ms without calibration shift

Vibration Rating 25 grms

Acceleration Error From  $\pm$  0.0015% FSO/g to  $\pm$  0.2% FSO/g

(highest to lowest pressure range)

\* Options available



Specifications apply to Models 2211A, 2911C and 2911F unless otherwise noted. Taber reserves the right to change specifications without notice.

Standard wiring	
mV/V and 0-5 VDC	PT O6E-10-6P
Excitation (+) Excitation (-) Signal (+) Signal (-) RTD	A D B C E & F
4-20 mAdc	
Excitation Signal/Return RTD	A B E & F

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